AMENDMENT TO THE CLAIMS:

      This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

      1. (previously presented): Method for producing a plate of steel which is resistant to abrasion and whose chemical composition comprises, by weight:

$$0.24\% \leq C < 0.35\%$$

$$0\% \leq Si \leq 2\%$$

$$0\% \leq Al \leq 2\%$$

$$0.5\% \leq Si + Al \leq 2\%$$

$$0\% \leq Mn \leq 2.5\%$$

$$0\% \leq Ni \leq 5\%$$

$$0\% \leq Cr \leq 5\%$$

$$0\% \leq Mo \leq 1\%$$

$$0\% \leq W \leq 2\%$$

$$0.1\% \leq Mo + W/2 \leq 1\%$$

$$0\% \leq B \leq 0.02\%$$

$$0\% \leq Ti \leq 1.1\%$$

$$0\% \leq Zr \leq 2.2\%$$

$$0.5\% < Ti + Zr/2 \leq 1.1\%$$

$$0\% \leq S \leq 0.15\%$$

$$N < 0.03\%$$

    - optionally up to 1.5% of copper,

        - optionally at least one element selected from Nb, Ta and V at contents such that Nb/2

+ Ta/4 + V $\leq$ 0.5%,

        - optionally at least one element selected from Se, Te, Ca, Bi, Pb at contents which are

less than or equal to 0.1%,

        the balance being iron and impurities resulting from the production operation, the

chemical composition further complying with the following relationships:

$$C^* = C - Ti/4 - Zr/8 + 7xN/8 \geq 0.095\%$$

        and:

$$1.05xMn + 0.54xNi + 0.50xCr + 0.3x(Mo + W/2)^{1/2} + K > 1.8$$

        with: K = 0.5 if B $\geq$ 0.0005% and K = 0 if B < 0.0005%.

        according to which the plate is subjected to a thermal quenching processing operation

which is carried out in the heat for rolling in the hot state or after austenitization by reheating in

a furnace, in order to carry out the quenching:

        - the plate is cooled at a mean cooling rate greater than 0.5°C/s between a temperature

greater than AC_3 and a temperature of from approximately T = 800 − 270xC* - 90xMn − 37xNi

− 70xCr − 83x(Mo + W/2), to T-50°C,

        - the plate is then cooled at a mean core cooling rate Vr < 1150xep$^{-1.7}$ and greater than

0.1°C/s between the temperature T and 100°C, ep being the thickness of the plate expressed in

mm,

        - the plate is cooled as far as ambient temperature and optionally planishing is carried

out.

        2. (previously presented): Method according to claim 1, wherein:

$$1.05xMn + 0.54xNi + 0.50xCr + 0.3x(Mo + W/2)^{1/2} + K > 2.$$

        3. (canceled).

                                    3

4. (previously presented): Method according to claim 1, wherein:

$$C^* \geq 0.12\%.$$

5. (previously presented): Method according to claim 1, wherein:

$$Si + Al \geq 0.7\%.$$

6. (previously presented): Method according to claim 1, wherein tempering is further carried out at a temperature which is less than or equal to 350°C.

7. (previously presented): Method according to claim 1, wherein, the chemical composition of the steel is obtained by a melting process during which or after the steel is placed in contact with a slag containing titanium and the titanium of the slag is caused to diffuse in the steel which is in a liquid state.

8. (withdrawn - currently amended): ~~Workpiece, and in particular A~~a plate~~,~~ of steel which is resistant to abrasion and whose chemical composition comprises, by weight:

$$0.24\% \leq C < 0.35\%$$

$$0\% \leq Si \leq 2\%$$

$$0\% \leq Al \leq 2\%$$

$$0.5\% \leq Si + Al \leq 2\%$$

$$0\% \leq Mn \leq 2.5\%$$

$$0\% \leq Ni \leq 5\%$$

$$0\% \leq Cr \leq 5\%$$

$$0\% \leq Mo \leq 1\%$$

$$0\% \leq W \leq 2\%$$

$$0.1\% \leq Mo + W/2 \leq 1\%$$

$$0\% \leq B \leq 0.02\%$$

$$0\% \leq Ti \leq 1.1\%$$

$$0\% \leq Zr \leq 2.2\%$$

$$\cancel{0.35\%}\underline{0.5\%} < Ti + Zr/2 \leq 1.1\%$$

$$0\% \leq S \leq 0.15\%$$

$$N < 0.03\%$$

- optionally ~~from 0%~~<u>up</u> to 1.5% of copper,

- optionally at least one element selected from Nb, Ta and V at contents such that Nb/2 + Ta/4 + V $\leq$ 0.5%,

- optionally at least one element selected from Se, Te, Ca, Bi, Pb at contents which are less than or equal to 0.1%,

the balance being iron and impurities resulting from the production operation, the chemical composition further complying with the following relationships:

$$C - Ti/4 - Zr/8 + 7xN/8 \geq 0.095\%$$

and:

$$1.05xMn + 0.54xNi + 0.50xCr + 0.3x(Mo + W/2)^{1/2} + K > 1.8$$

with: K = 0.5 if B $\geq$ 0.0005% and K = 0 if B < 0.0005%,

the steel having a martensitic or martensitic/bainitic structure, the structure containing from 5% to 20% of retained austenite and carbides.

9. (withdrawn - currently amended): ~~Workpiece~~<u>A plate</u> according to claim 8, characterized in that:

$$1.05xMn + 0.54xNi + 0.50xCr + 0.3x(Mo + W/2)^{1/2} + K > 2.$$

10. (withdrawn - currently amended): ~~Workpiece~~<u>A plate</u> according to claim 8 ~~or claim 9~~, ~~characterized in that~~<u>wherein</u>:

$$Ti + Zr/2 \geq 0.4\%.$$

11. (withdrawn - currently amended): ~~Workpiece~~ A plate according to ~~any one of claims 8 to 10~~claim 8, ~~characterized in that~~wherein:

$$C^* \geq 0.12\%.$$

12. (withdrawn - currently amended): ~~Workpiece~~ A plate according to ~~any one of claims 8 to 11~~claim 8, ~~characterized in that~~wherein:

$$Si + Al \geq 0.7\%$$

13. (withdrawn - currently amended): ~~Workpiece~~ A plate according ~~to any one of claims 8 to 12~~claim 8, ~~characterized in that it is a~~wherein the plate ~~having~~has a thickness of from 2 mm to 150 mm.